

# THE NATURAL PROGRESSION PATTERN

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Christopher Alexander is an American Architect who suggests that there is a "timeless way of building" that results in "whole" buildings and communities that humans are naturally drawn to and function well in. He suggests that there are events and patterns that occur in particular spaces that result in rich experiences that he describes as being full of life or whole - he calls these patterns of events pattern languages. He has identified certain natural "pattern languages" that make up these "whole" buildings and communities, and states that when we discover the correct patterns and their sequence it is easy to design "whole" buildings. This idea is useful for educators as well as education centers on patterns of events designed for rich "whole" learning.

Rich learning environments contain certain patterns just as buildings or community spaces do; creating instruction based on those patterns can make learning come alive for both teacher and students. We know that learning occurs through the process of pattern acquisition and building. Identifying and using the natural pattern languages that are inherent in "whole" learning and instruction can capitalize on the brain's natural capacity and inclination.

The **Natural Progression Pattern (NPP)** introduced here is a schema or pattern language based on a pattern that occurs commonly in nature and in learning that educators can (and do) use to create powerful learning and instruction.

## **The Pattern**

The **NPP** is a sequential development from simple elements to final product and includes the following six components:

1. **Elements, raw materials, or stuff** that exists in
2. **Relationships or environments**, to build
3. **Foundations & structures** that support
4. **Systems, (cause & effect)** that allow
5. **Expansion, (broader, higher, deeper)** to achieve
6. **Mastery & Service** - learning put to real-world use.

The **Natural Progression Pattern** is just that - a naturally occurring pattern - one that we encounter and use frequently whether conscious of it or not. One reason we may not be conscious of it is that we use different terms to describe the pattern depending on the occurrence. When

we become aware of it we can consciously use the language and sequence to create whole learning environments. Here are a few instances of the NPP.

The life cycle of flowering plant is comprised of:

1. Seed, soil, air, light, moisture (elements/raw materials) that combine in
2. optimal proportions of each (relationship/environment) so that
3. the seed sprouts roots and stems (foundation/structure) that
4. Support functions (systems/cause & effect) such as photosynthesis and transpiration etc.
5. These structures and systems, supported by the environment, allow the plant to expand its growth deeper into the soil while growing broader and taller above the soil (expansion)
6. Until it reaches maturity and produces flowers and ultimately seeds - to start the cycle over again (mastery/service).

After attending professional development on brain research and then being introduced to the NPP, a teacher realized that the learning process followed the pattern:

1. The learner/brain is exposed to stimuli in the environment (elements/raw materials).
2. The brain determines importance based on prior experience (relationship/environment).
3. The learner begins to use the new information (foundation/structure).
4. Using these new skills and understandings the learner can make connections to new problems or

different subjects for integration and transfer (systems/cause & effect).

5. The learner can then synthesize knowledge to dig deeper, research and create to strengthen and demonstrate personal learning (expansion).
6. The learner can evaluate his/her learning and ideally use it to teach or help someone else (mastery/service).

Bloom's Taxonomy seems to be another instance:

1. Knowledge - recall data or information (elements/raw material)
2. Comprehension - Understand meaning, etc. (relationship/environment)
3. Application - use in a new situation (foundation/structure)
4. Analysis - identify motives or causes, or support for generalizations (systems/cause & effect)
5. Synthesis - create new meaning or structure (expansion)
6. Evaluation - judge value and usefulness of ideas or materials (mastery/service)

We've seen that this general pattern can be used to describe such diverse models or events as the life cycle of a flowering plant, learning processes, and Bloom's Taxonomy; it can also be used to describe others such as building construction, problem solving processes (Big 6), writing process (Six Traits), or lesson planning. The pattern may also be used to map (and potentially integrate) academic

disciplines over the course of a year or series of years, units, days, or lessons.

**The descriptors change to fit the characteristics of the instance, but the pattern does not.** The purpose of the pattern is not to lock educators or learners into a rigid sequence of steps, but rather to raise awareness that if education only focuses on two or three of the pattern components (i.e. structures and mastery - practice the problems and take the test) little learning occurs. When teachers and students are aware that as they build skills, those skills are comprised of elements in relationships and environments, powerful learning occurs; learning that will lead to higher order thinking, analysis, research and creativity. True mastery can be reached and then applied through service learning, teaching, and real life application.

The power of the pattern is seen as it illuminates not the differences, but the connections among all of the disciplines - including the arts - studied in school, and more importantly, experienced in the world at large.

The organization of the Elementary Fine Arts Core Guidebook is based on the NPP with the following descriptors applied to each of the art forms:

1. **Experience and identify** the art form elements
2. **Explore and Contextualize** them and their relationships in the art form environment
3. **Build and practice** foundational skills and structures
4. **Analyze and integrate** to critically observe and understand works of art (visual or performance), systems (periods, styles), and make connections to other subjects or events,
5. **Research and create** to expand personal creativity & voice
6. **Refine and Contribute** as individuals and groups

The charts on the following pages illustrate the way the NPP may be used to plan for teaching and integrating. The rows show progression in a discipline and the columns show correlations among disciplines. The **Content Overview Chart** shows correlations among multiple disciplines using the general NPP descriptors. The **Four Art form Correlation Chart** provides a general and very brief overview of the Elementary Fine Arts Core with the elements introduced in the left column, and then followed through the NPP sequence with the process descriptors.